1956 serum contained the 'D-like' antibody. Dr. Allyn B. Ley and Miss Jean Harris of the Memorial Hospital for Cancer and Allied Diseases informed us that the 'anti-D' in Miss B.'s serum did not react with the cells of her two Rh-positive sisters, one of whom was *CDe/cde*. We have been unable to locate this family for further investigation.

This work and previous observations[2,4] reveal the inadequacy of the name 'D-like'. The notations Rh(LW) and anti-Rh(LW) had been under consideration—the (LW) referring to Landsteiner and Wiener's original findings[5].

That Rh(LW) was phenotypically related to Rh seemed to be established by its absence in the unique Australian Aborigine blood which lacked all representation of the C, D and E series of antigens[6]. But in view of this examination of Mrs. G., her brothers and her children, we are inclined to believe that the gene responsible for the production of this antigen is not a part of the Rh gene complex, and we suggest that LW may be a more appropriate symbol.

A more definitive characterization of LW may be obtained from family studies of individuals who lack this almost universally present antigen. Until such data are available, we can only postulate that the genetic background of LW may be attributable to gene interaction of the kind thought to affect the ABO, Lewis, P and I systems[7]. Had the parents of Mrs. G. been first cousins, this theory would have gained support; however, they are not known to have been related but this would not be contradictory to invoking the gene interaction phenomenon.

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HISTOCHEMISTRY

Staining of Vascular Elastic Fibres in Mummified and Dried Human Tissues

IT has been clearly established in mummified and other dried human material that the connective tissues are frequently well preserved while the epithelia are less-often recognizable[1,2]. This is probably a reflexion of relative susceptibility to any autolysis which may precede effective desiccation. Neurovascular bundles are readily recognized in some Egyptian mummies and in dried bodies from other ancient cultures; for this reason direct study of vascular disease in antiquity is possible[1,3,4]. Nevertheless, desiccation produces considerable distortion of blood vessels, and interpretation of changes and elimination of artefact is greatly aided by delineation of elastic fibres, which are valuable landmarks in vessel structure.

The stainability of elastica in blood vessels has been investigated in late dynastic Egyptian mummy tissue and also in control modern human tissues artificially dehydrated and preserved in the laboratory using a solid natron mixture and natron in saturated solution for periods of 40–70 days, in imitation of what we believe to have been ancient Egyptian practice. The structures studied included elastic arteries (common carotid), muscular arteries (iliac and popliteal) and associated veins as well as smaller vessels in different sites. The stains used included Weigert's method for elastic fibres, Verhoeff's method counterstained Van Gieson, Gomori's aldehyde fuchsin stain, orcein 0·75 per cent in acid alcohol, phosphotungstic acid hæmatoxylin by the Mallory and Lieb methods, Masson's trichrome stain with ponceau-fuchsin and light green, and Heidenhain's iron hæmatoxylin.

In all cases it was noted that although elastic fibres markedly resist change the excellence of their delineation is roughly paralleled by the general preservation of the other tissues.

Orcein is not a satisfactory stain for elastic fibres in blood vessels but it may be useful in demonstrating elastica in the mummy cutis. Nor is Masson's stain of real value; elastica remains rather refractile and light pink. Phosphotungstic acid hæmatoxylin, using both Mallory and Lieb methods, gives satisfactory staining of elastic fibres in all vessels both in laboratory desiccated and mummy tissues but fails to detect all the elastica present in less well-preserved ancient specimens. Lieb's method is less deficient in this respect; both methods demonstrate the internal elastic lamina of large arteries most successfully.

For the identification and photography of small vessels in various tissues the most satisfactory techniques are the fairly specific methods of Weigert and Verhoeff, counterstained with Van Gieson's fluid. In ancient material the Verhoeff stain tends sometimes to produce patchy blackening of dense collagen. Gomori's method is also useful although elastic fibres are less readily picked up when sections are being rapidly scanned with low-power objectives. With ancient material the Gomori, Weigert and Verhoeff methods are all satisfactory for muscular arteries but the latter gives better contrast for colour photography; for elastic arteries where elastic fibres are abundant the Weigert and Verhoeff methods are rather less precise; again Verhoeff's is to be preferred and in well-preserved vessels gives beautiful results. In less well-preserved tissues the Gomori method gives more precise delineation of the elastica and in laboratory desiccated material gives the best results in both types of arteries.

For veins, both in mummy tissue and in desiccated material all methods give satisfactory staining. Weigert's method is excellent for rapid scanning identification.

With regard to monochrome photography Heidenhain's iron hæmatoxylin is unsurpassed and for publication of pathological vascular lesions in ancient tissues this is the method of choice[4]; with careful differentiation the elastic fibres may be demonstrated against a largely colourless background.

In conclusion it is clear that elastic fibres successfully resist laboratory desiccation using material believed to have been utilized in mummification in ancient Egypt. After successful mummification it appears probable that little further change occurs during centuries of storage in a warm, dry atmosphere.

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